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37. ON THE TAXONOMIC STATUS OF *GELASIMUS ACUTUS* STIMPSON (DECAPODA: CCYPODIDAE) PRESENT IN THE NATIONAL COLLECTION OF THE ZOOLOGICAL SURVEY OF INDIA, CALCUTTA

(With a text-figure)

While surveying the intertidal macrofauna of the mangrove-fringed estuarine belt of the Sunderbans, India, four species of cypodid crabs of the genus *Uca* were collected. Among them, the most abundant and widely distributed forms were determined as *Uca (Deltuca) rosea* (Tweedie). Alcock (1900) recorded *Gelasimus acutus* Stimpson from India and stated clearly that "in the Indian Museum are 92 specimens, chiefly from the Sunderbans and Mergui, but also from Karachi and the Andamans". On examination of the material deposited in the National Collection of the Zoological Survey of India, Calcutta as *G. acutus* Stimpson, it appears that all of them are *U. (Deltuca) rosea* (Tweedie).

TAXONOMY

Uca (Deltuca) rosea (Tweedie)

1900. *Gelasimus acutus*, Alcock, *J. Asiat. Soc. Bengal*, 69: 360-361.

1932. *Uca manii*, Pearse, *Rec. Indian Mus.*, 34(3): 292.

1936. *Uca manii*, Pearse, *Scient. Mon.*, N.Y., 42: 353.

1937. *Gelasimus manii*, Chopra & Das, *Rec. Indian Mus.*, 39: 422.

Material studied: Material present in the National collection of the Zoological Survey of

India, Calcutta and the fresh lot recently collected from the Sunderbans, India.

Diagnosis: Carapace with fronto-orbital margin strongly oblique, antero-lateral carapace margin absent, antero-lateral angle acute and produced (Fig. 1A); much enlarged meri of ambulatories, tip of the large chela forceps-like, two grooves, dorsal and sub-dorsal, covering almost entire length of major dactyl (Fig. 1B); gonopod with broad anterior and posterior flanges, inner process broad and well developed (Fig. 1C).

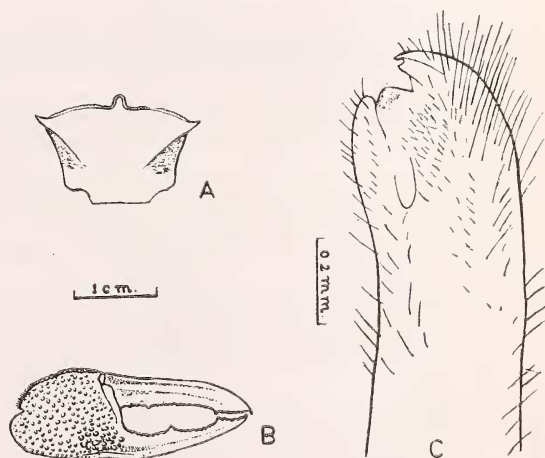


Fig. 1. *Uca (Deltuca) rosea*: A. Dorsal surface of the carapace of a mature male; B. Dorsal surface of major cheliped; ;C. Gonopod tip (right).

DISCUSSION

In 1900, Alcock recorded *Gelasimus acutus* Stimpson from the Sunderbans, India and in 1932 and 1936, Pearse recorded *Uca manii* Rathbun from the Gangetic delta. Rathbun, Tesch and Tweedie have shown that *Gelasimus acutus* of de Man and that recorded as *acutus* by Alcock from India are not the same form as *G. acutus* Stimpson and synonymised the former species under *G. manii* (Rathbun) (see Chopra and Das 1937). While dealing with the crab *G. manii* (Rathbun) from Mergui and Tavoy coast, Lower Burma, Chopra and Das (1937) stated that "all the specimens are typical, agreeing very closely with the description of de Man and Alcock, as also with examples named by them". In her monograph on the fiddler crabs of the world, Crane (1975) has included not only some material of *U. (Deltuca) rosea* (Tweedie) from Port Canning, Sunderbans and Nicobar Islands but also synonymised *U. manii* Rathbun recorded by Pearse from the Gangetic delta under *Uca*

(*Deltuca*) *rosea* (Tweedie). Further, she also commented that the Indian subcontinent is the habitat for *U. (Deltuca) rosea* (Tweedie) and not of *U. (Deltuca) acuta* Stimpson. But she did not comment clearly on the status of *G. acutus* Stimpson recorded by Alcock from India. This led us to re-examine all the material of *G. acutus* Stimpson present in the National collection of the Zoological Survey of India, Calcutta. The re-investigation reveals that these are all *U. (Deltuca) rosea* (Tweedie), because of the presence of two grooves running almost the entire length of major dactyl, absence of antero-lateral carapace margin and the gonopod structures (Fig. 1C). In addition, fresh material recently collected in large numbers from different areas of the Sunderbans was also studied; these closely resemble *U. (Deltuca) rosea* (Tweedie). This observation clearly supports the comment of Crane (1975) on the distribution of *rosea* as mentioned earlier. A comparative table is provided to differentiate *rosea* from *acuta* (Table 1).

TABLE 1
COMPARATIVE ACCOUNT OF TWO SPECIES OF *Uca*

<i>Uca acuta</i> (Stimpson)	<i>Uca (Deltuca) rosea</i> (Tweedie)
A single long groove running laterally along almost entire length of major dactyl, the sub-dorsal groove short.	Two grooves running along almost entire length of major dactyl.
Fronto-orbital margin slightly oblique, almost straight.	Fronto-orbital margin strongly oblique.
Antero-lateral carapace margin well-developed.	Antero-lateral carapace margin absent.
Antero-lateral angles acute to varying degrees, moderately produced.	Antero-lateral angles acute and produced.
Meri of Ambulatories enlarged antero-ventral ridge on first leg absent proximally, represented distally by separated fine serrations; corresponding serrations on 2nd, 3rd and 4th legs weak.	Meri of ambulatories much enlarged, antero-ventral ridge on 1st leg absent proximally; distal serrations non-contiguous, on 1st, 2nd, and 3rd legs, absent on 4th and from postero-ventral ridge on 4th leg.
Gonopod with anterior flange large, posterior rudimentary; inner process minute, scarcely reaching base of flange.	Gonopod with anterior and posterior flanges both broad; inner process broad, well developed.

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38. ON SOME COLLECTIONS OF MONOGONONT ROTIFERS
(ROTIFERA: EUROTATORIA) FROM HARYANA STATE,
INDIA

(With seventeen text-figures)

Very little is known about the rotifer fauna of Haryana State; the previous report from north-western India (Sharma 1976) included only fifteen species from this region. The present study is, however, based on samples collected from Ambala district (30°21'N, 76°52' E) between July, 1972-June, 1973 and on various occasions between 1978-84. As a result, twenty species are added to the earlier list.

List of examined taxa.

Class : ROTIFERA
Subclass : EUROTATORIA
Superorder: Monogononta
Order : Ploimida

Family: BRACHIONIDAE

Brachionus angularis (Gosse 1851)
B. bidentata Anderson 1889
B. budapestinensis Daday 1885
B. caudatus Borris & Daday 1894